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EXAMINER

JOHNSON III, HENRY M

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Response to Arguments

Applicant's arguments, filed June 23, 2006, with respect to the rejection(s) of claims 17-27 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground for rejection is made in view of Kelman in view of Quon et al. Quon et al. teach methods for removing hair using pulsed laser energy with fluences overlapping those of the application and pulse durations and wavelengths consistent with those disclosed by the applicant as resulting in the treatment.

Applicant's arguments with respect to claims 1-16 have been fully considered but they are not persuasive. The Kelman and Eckhouse disclosures are clearly related to hair treatment and a skilled artisan would be motivated to look to such related art in the development of a device for such treatment.

Claim Objections

Claim 3 is objected to because of the following informalities: the term "measurable area of skin" is not clear in the sense that essentially all areas are measurable, no matter how small. The intent of the term with respect to limitation is not understood.

Claims 17 and 26 are objected to due to the term "in part", said term not clear as to its intended impact on the claim limitation.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,606,798 to Kelman in view of U.S. Patent 6,280,438 to Eckhouse et al. Kelman teaches a laser hair cutting apparatus within a hand-held housing, the housing including the laser, power supply (control), a vacuum source and a mirror that is positioned to direct the laser energy substantially parallel to the surface of the skin (abstract). Kelman discloses a preferred wavelength of 800 nanometers as that is absorbed by the hair, but not by surrounding tissue. An absorber is included (Fig. 2A, # 30) to prevent spurious radiation from leaving the housing (shielding). The inside of the housing is interpreted as a light application chamber. The method steps are turning on the device (generating radiation), which must be done to use the device and directing the energy in a specific direction, which is inherent in the design. Kelman does not disclose specific parameters for hair treatment. Eckhouse et al. teach an apparatus and methods for electromagnetic removal of hair (hair treatment). Devices include pulsed light sources such as flashlamps (incoherent) for providing electromagnetic treatment of the skin, including hair removal (abstract). The flashlamp is disclosed as having a wavelength range from 200 to 1300 nanometers, however the preferred range is 550 to 1300 nanometers (col. 6, lines 5-7). The pulses are controlled by varying the pulse width and pulse intervals (Col. 22, lines 30-35), thus indicating multiple pulses (bursts). A 50 ms pulse width is disclosed. The fluence delivered is disclosed as from 10 to 100 J/cm² (Col. 5, line 28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the pulse parameters as taught by Eckhouse et al. in the invention of Kelman as Kelman provides few details on the control means, thus leading on of skill in the art to seek guidance from other hair treatment devices. Eckhouse provides such guidance including information regarding absorption of various wavelengths by skin type and hair colors.

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Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,606,798 to Kelman in view of U.S. Patent 6,280,438 to Eckhouse et al. as applied to claim 7 above, and further in view of U.S. Patent 6,306,160 to Nidetzky. Kerman and Eckhouse are discussed above, but do not teach a contact sensor. Kelman discloses a contact ring sensor that inhibits operation of a laser without proper contact (Col. 1, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the contact sensor as disclosed by Nidetzky in the device of Kelman as a safety feature to reduce the possibility of stray radiation.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,606,798 to Kelman in view of U.S. Patent 6,533,775 to Rizioiu. Kelman is discussed above, but does not teach a reservoir in the device. Rizioiu disclose a hand held device for hair treatment using electromagnetic radiation that includes a reservoir for delivery of an agent to the treatment area. The reservoir is disclosed as being filled with a composition for disrupting hair cuticles and is interpreted as a dye. A dispensing means is implied with such a reservoir. It would have been obvious to one skilled in the art to include a reservoir as taught by Rizioiu in the invention of Kelman to provide an agent to disrupt the hair as suggested explicitly by Rizioiu.

Claims 17-19, 22, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,606,798 to Kelman in view of U.S. Patent 5,916,211 to Quon et al. Kelman is discussed above, but does not teach specific parameters of the pulses. Quon et al. disclose a method of removing (treating) hair using a laser with a fluence of from 10 to 50 J/cm² and pulse widths of 1 μ s to 1000 μ s and wavelengths from 600 to 800 nanometers. The parameters overlap those disclosed by the applicant and would therefore induce the same results in hair. It would have been obvious to one skilled in the art to use the pulse parameters as taught by Quon et al. in the invention of Kelman to treat hair as one of skill in the art would be drawn to

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other treatment methodologies to further the bounds of the parameters of Kelman based on knowledge of other effects of radiation on hair well known in the art.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,606,798 to Kelman in view of U.S. Patent 5,916,211 to Quon et al. as applied to claim 19 above and further in view of U.S. Patent 4,608,978 to Rohr. Kelman and Quon et al. are discussed above, but do not teach the use of incoherent light. Rohr teaches the use of incoherent light for treatment of hair. Lacking any statement of criticality, the use of a coherent or incoherent light source is considered one of design source to a skilled artisan, as both sources are well known in the art.

Allowable Subject Matter

Claims 24 and 27-32 are allowed.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Henry M. Johnson, III
Primary Examiner
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